

ABSTRACT

Process for the aqueous suspension polymerization of vinyl chloride with the use of dialkyl peroxydicarbonates in solution and process for the manufacture of a solution of dialkyl peroxydicarbonate.

The dialkyl peroxydicarbonates with short alkyl chains, preferably diethyl and diisopropyl peroxydicarbonates, are used for the aqueous suspension polymerization of vinyl chloride, in the form of a solution in a dialkyl alkanedicarboxylate which is liquid and insoluble in water. The preferred solvents are hexanedicarboxylates (adipates) derived from adipic acid and from C₆-C₁₀ alkanols. The peroxydicarbonate concentration of the said solutions is generally 15-40 % by weight. The process according to the invention produces vinyl chloride polymers of improved quality resulting in shaped articles exhibiting markedly fewer fisheyes.

The invention also relates to a two-stage process for the manufacture of a solution of dialkyl peroxydicarbonates with short alkyl chains which is particularly suited for the aqueous suspension polymerization of vinyl chloride. According to this process an inorganic salt is used in the stage of manufacture of the peroxydicarbonate (first stage) and the latter is subsequently isolated by extraction by means of a water-insoluble solvent (second stage).

No figure.